Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An injection molding apparatus for making a molded part, comprising:

an injection molding machine for injecting molten resin, said injection molding machine including a screw cylinder having a tip, a nozzle at said tip and a threaded screw advanceable in said screw cylinder for injecting molten resin from said nozzle, said injection molding machine further having structurally associated therewith a stationary mold portion and a movable mold portion forming a mold parting line therebetween;

a non-metallic injection mold comprising a stationary cavity mold and a movable core mold having a first molten resin flow path therebetween, said first molten resin flow path having a terminal end portion distal from said nozzle, said movable core mold having a pair of ejector pins arranged therein for ~~forceable~~ forcibly separating said movable core mold from said first molten resin flow path;

a second molten resin flow path along said mold parting line arranged proximate to said movable core mold and proximate to said terminal end portion of said first molten resin flow path; and

an adjustable pressure relief valve having a movable pin disposed on said mold parting line proximate to said terminal end portion of said first molten resin flow path and proximate said second molten resin flow path, said valve being operable between a blocking position and an unblocking position, at the blocking position molten resin flow from said first molten resin flow path to said second molten resin flow path is blocked by said pin, at the unblocking position molten resin flow from said first molten resin flow path to said second molten resin flow path is permitted is by said pin, said valve moving from the blocked position to the unblocked position in response to a change in molding cavity pressure associated with a change in molten resin material introduced into said injection molding machine, said adjustable pressure relief valve retaining molten material in said first molten resin flow path when the molding cavity pressure is less than a predetermined value and releasing molten resin material from said first molten resin flow path into said second molten resin flow path when molding cavity pressure exceeds said predetermined value.

2-3. Cancelled.

4. (Previously Presented) The apparatus recited in claim 1 wherein said movable pin is actuated by a spring bias, said movable pin being adapted for movement between a first position that blocks said molten resin when said pressure is less than said predetermined value, and a second position that releases said molten resin in said first molten resin flow path into a second molten resin flow path in fluid communications with said first molten resin flow path thereby relieving pressure in said first molten resin flow path.

5-6. Cancelled.

7. (Original) The apparatus recited in claim 1 wherein said non-metallic mold is made from a material selected from the group consisting of: a cast epoxy, stereo lithography, urethane, and silicone.

8-9. (Cancelled)

10. (Previously Presented) The apparatus recited in 1 wherein said adjustable pressure relief valve is adapted to automatically reset after said pressure in said first molten resin flow path falls below said predetermined value.